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We are very grateful to all contributors and Advertisers. It is not always possible to include submitted features in the current issue. Those omitted are always kept for future use.

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Front Cover: Ochils TL Kev Mitchell carries the flame. In addition to his volunteering with Scottish MR, Kev was nominated as a torch bearer by a number of ex Venture Scouts who had been on a number of Scottish Scouts 7 Summits Expeditions, for which Kev was one of the training leaders.

The Mountain Rescue Committee of Scotland (MRCofS) is a Registered Scottish Charity – Number SC015257
Train Hard - Rescue Easy

This year Scottish Mountain Rescue has engaged with our Mountain Rescue colleagues around the world and has started to get more fully engaged with the International Commission on Alpine Rescue.

Scottish MR representatives were at the UK conference in Leeds, have hosted visits from colleagues from Icelandic SAR, have visited MR teams in Spain, have been on the Austrian MR avalanche Rescue instructors course, have co-delivered MR courses in Ireland and we have received a number of additional requests for members to get involved in other exciting exchange and training opportunities over the next couple of years.

This interest in Scottish MR is based on our colleagues around the world being impressed with our voluntary MR service and the ability of our team members to operate in some of the harshest mountain conditions in the world. As Chairman I am keen to continue to make opportunities available for volunteer Team members and Team Leaders to continue to develop their personal and team skills by being involved in these types of training and development opportunities and to continue to learn from our colleagues from around the world. I was particularly impressed with the reports produced from Ken Marsden, Jim Fraser and Stu Johnson whom represented Scottish MR at the recent IKAR conference in Poland. Attending at these great opportunities will enable us to move forward analysing best practise from other parts of the world and to continue to keep Mountaineering and climbing skills at the core of what we do.

Our National MRCofS courses continue to go from strength to strength and we have had a good number of team members attending the range of courses delivered under Stu Johnsons care, and we have a packed calendar of exciting courses and events planned for 2013.

I am delighted at the response from team members wishing to book onto this years Scottish MR Conference, being held at Glenmore Lodge this December. The programme is focussing on personal and team winter mountaineering and winter rescue skills and once again is an opportunity to focus us all on our core capabilities. The programme is outdoors based and very workshop/hands on focussed and will appeal to a wide range of MR team members old, young, experienced, inexperienced and those with beards and those without!!!! A gathering of like minded individuals intent on improving their winter skills should be a great social occasion and I look forward to seeing you there.

Have a safe and enjoyable winter season,

Jonathan Hart
Chair - MRCofS
Mountain Rescue Photo Display - Ratho.

Findlay Macrae MStJ

This idea originated as a result of me trying to come up with ideas to present at St John Fife Fundraising Meeting.

The first idea which is not unique as it was previously done by the RAF and SARDA was to create a car sticker that would promote and identify the support given to Mountain Rescue in Scotland by the Order of St John, and after several discussions with St John in Edinburgh and the MRCofS the current design was arrived at and very kindly funded by Edinburgh through Richard Waller and have been circulated to all Scottish St John area secretaries for issue to members.

The second idea followed on from this in that I decided that it was time that the general public was made more aware of the huge commitment that The Order of St John has made to Scottish Mountain Rescue, and as an ex member of the Aberdeen Team [for almost 15 years] and I was sorting through some old team photos it seemed like a good idea to put together a photo exhibition which would promote the Order and Scottish Mountain Rescue to visually display to the public the support to teams showing some of the vehicle and buildings purchased and donated over the past years, which incidently started with the Aberdeen Team and Glenshee Ski Rescue.

As I was searching through the photo albums in Edinburgh it also became clear that I needed to include both Sarda and the Nith and Loch Lomond Rescue Boats. The staff in St John Edinburgh very kindly printed and laminated most of the photos in time for me to put it all together for the MCoFS Junior climbing competition which was held at the EICA Ratho last Saturday, during which volunteers from the Order manned the display and passed out copies or our forms Focus magazine and the Supporting Scottish Mountain Rescue car stickers.

We will be repeating this display on Saturday/Sunday 6/7th of October at the EICA Ratho where the BMC are holding their Junior Climbing Competition.

We will also be looking at future venues throughout Scotland at which the display could be set up and will be open to any organisation who would be keen to participate to contact the Edinburgh Office.
The presentation from St. John to Glen Coe Mountain Rescue Team of a new Command and Control vehicle.

Presentation of a Toyota Hilux to the Skye Mountain Rescue Team.

Under our 'Mountain Rescue Vehicle Replacement Scheme', we contributed £20k towards the £25k cost of the vehicle.

It was a very good occasion and Hugh MacLeod of MacLeod was pleased to follow in the footsteps of his father who presented the Land Rover funded by St John in 2000. That presentation took place on the same day as John MacLeod of MacLeod opened the base at Glenbrittle, for which he had donated the land. The 'across the bonnet' shot with the team’s Gerry Akroyd receiving the keys from Hugh cleverly replicates a photo of Gerry receiving the Land Rover keys from Hugh’s father.

Last Friday’s presentation took place at the Sligachan base and the opportunity was taken to renew thanks to Fiona Campbell who had kindly donated the land for that base.

(Two small bases, either side of the Cuillin mountains, were provided for the Skye Mountain Rescue Team rather than one larger one, to meet their operational needs.)

Richard Waller
On Saturday 6th October 2012, Sir Malcolm Ross, Prior of the Order of St John Scotland and Lord-Lieutenant of the Stewartry of Kirkcudbright, officially opened the new Galloway Mountain Rescue Base in Princes Avenue, Newton Stewart.

Derek Hamilton, Galloway Mountain Rescue Chair said:
“"The building was originally built around 60 years ago as the town fire station, and occupied from 1966 by the Scottish Ambulance Service; so it’s fitting that it is still being used today, by mountain rescue, providing an emergency service”

“Below, it was actually four years ago that we first heard that it may be possible to acquire the building for the team and we owe, huge, thanks, firstly to Dumfries and Galloway Council for releasing it under a very reasonable arrangement and also the local councillors of that period who supported our request”.

Sir Malcolm Ross, Prior of the Order of St John Scotland said:
“St John Scotland are pleased and proud to support Scottish Mountain Rescue and greatly admire the way mountain rescue teams in Scotland provide a voluntary search and rescue service for people at risk, 24 hours a day, 365 days a year. I am absolutely delighted that St John has been able to join with the Council, local companies and the team members themselves in providing this major new resource for the Galloway Mountain Rescue Team.”

Kenny Paterson, chairman of the St John Dumfries and Galloway Committee said:
"This is the latest of 12 bases provided by St John Scotland to 10 Scottish mountain rescue teams at a cost of £1.9m. As another part of our major programme of support to Scottish Mountain Rescue we have also funded a vehicle for each of 26 teams, at a cost of £660k. We are thrilled at being a part of this venture and have felt proud to see our St John logo on one of the team’s vehicles, funded by St John some years ago, as it goes about its vital business of providing help to others”.

“Also, as the team’s local St John branch, we are very pleased to be funding an additional defibrillator for them in the near future”.

Mike McCann, the current and 8th Team Leader, said:
“The Galloway Mountain Rescue Team, or the Galloway Search and Rescue Group as it was originally called, was formed in 1975. The opening of the base therefore marks a very special moment in our history. After 37 years of taking up space in the local police station, we have at last space of our own to house our ever increasing stock of equipment. The long and arduous tale of renovation, only made possible by the generous support given by many local tradesmen and businesses, has at last come to fruition’.
Ken MacKenzie, Depute Team Leader and responsible for overseeing the renovation work added:
“The public in Galloway and South Ayrshire are continual supporters of our team and much of the money raised from them recently, has helped us furnish the base. We are always extremely grateful for their support. We strive, as a team, to provide a professional service and without the organisations and the people who support us, that challenge would be a much greater challenge. A massive thanks must finally go to The Order of St John Scotland, as without their support and assistance this project would not have been possible”.

Around 80 invited guests, former team members and the public joined the team to celebrate the official opening. A Royal Navy Sea King helicopter from HMS Gannet, Prestwick, saluted the new base with an impressive ‘fly past’ to conclude the official ceremony.

Released: 6th October 2012 at 1300hrs
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As part of our staff training we took the opportunity to informally explore these questions by doing some testing using a recently acquired load cell. This report details our findings.

**About The Tests**

**Snowpack and Spatial Variability**

Snow anchors depend a great deal on the integral strength of the snowpack they are placed in. The snow pack in these tests was in most cases the worst case scenario for a real climbing situation i.e. it was a new snowpack which was poorly consolidated. In better snow conditions you would expect the snow anchors to perform with higher fail loads. However, the ‘weak’ snowpack did allow us to test the anchors to failure and thus identify possible failure modes and explore the effect of different axe configurations on anchor strength.

Snowpacks are very variable. Even when test sites are adjacent to each other, results, as shown by studies into using rutschblocks, can vary dramatically. This effect is known as spatial variability (1). Hence subtle differences in the snowpack can have a profound effect on the inherent strength of a snow anchor when it is loaded - even with anchors that are created a few metres adjacent to each other. Hence this variability should be taken into account when examining these test results.

**Testing Protocol**

**Date:** 14/12/11  **Venue:** WEST WALL IN COIRE NA CISTE, CAIRNGORMS

Snowpack: New shallow snow pack with poor consolidation throughout. Air temperature below freezing.

All the staff split into teams to create a variety of snow anchors on the same aspect (easterly), and angle (approx 25 - 27°) of slope.

Measuring How Hard The Snowpack Was

The snow layer the anchor was buried in was then tested for hardness using the scale commonly used to assess the ‘hardness’ of layers in snowpits:

- If you can push your whole fist, it is “very soft.”
- If you can push four fingers, it is “soft.”
- If you can push one finger, it is “medium.”
- If you can push a pencil, it is “hard.”
- If you can push a knife, it is “very hard.”

The same person did the hardness test for all anchors to ensure consistency. As the snow pack was very new and had not undergone much in the way of melt_freeze most of the hardness tests had the snow as 1 finger or four fingers hardness i.e. soft to medium hardness.
Measuring The Load
Each anchor then had a load cell attached (e.g. if a buried axe we attached the load cell to the sling that was clove hitched to the axe). A 20m length of dynamic 10.5mm – was then attached to the load cell using a tied off Italian Hitch leaving a long tail. This long tail was then belayed (hand over hand or NZ boot axe belay) to prevent any anchor failing from hitting the team doing the load pull.

Fail Loads
The testing of the snow anchors we created involved applying a load by having individuals pull on the test rope. We would then increase the number of people pulling until the anchor failed. The average force or load exerted by one individual pulling on the load rope = 0.8kN. The majority of buried axe anchors failed with 1 or 2 people pulling.

For those who need a physics/mechanics refresher a Newton is a unit of force. It is defined as the force required to accelerate a mass of 1 kg at a constant 1 meter per second per second. 1 kg of matter weighs 9.81 Newtons or to make the arithmetic easier you can round it up to 10 Newtons. Therefore 1 KiloNewton or kN = 1000 Newtons = 100Kg.

All the loads we generated could be on the high side as our testing involved directly applying a load to the anchor. The image below shows our test rig in action.

TESTING
To ensure the diagrams are easier to use to compare results, I have only plotted results for the same hardness of snowpack except where it is stated there was a difference.

Buried Horizontal Mountaineering Axe Vs Reinforced Buried Horizontal Mountaineering Axe

The first set of tests involved testing and comparing horizontal axe belays and reinforced horizontal axe belays using 60cm straight shafted mountaineering axes. In this diagram the snow hardness for all tests is 1 FINGER.

As expected the reinforced horizontal ice axes were stronger than the horizontal axe belays, having an average fail load of 1.48kN compared to 0.9kN of the horizontal axe i.e. reinforced buried axe belays were approximately 64% stronger.

Horizontal Buried Bent Shaft Technical Axe Vs Reinforced Horizontal Buried Bent Shafted Technical Axe

The second set of tests involved testing horizontal axe belays and reinforced horizontal axe belays using bent shafted technical axes. Generally speaking based on our small sample, technical tools gave average fail loads that were around 38% and 40% less than the corresponding snow anchor created with a mountaineering axe.

Bent Shafted Technical Tools – A new Approach to Buried Axe Anchors?
Through our own experience the radical curve of bent shafted technical axes makes them harder to bury so that they lay flush against the front wall and bottom of a snow anchor pit.

Our results show that horizontal and reinforced bent shafted axe belays are 38% and 40% weaker respectively than the equivalent anchors constructed using straight shafted mountaineering axes. This may partly be explained that bent shafted technical tools are less symmetrical and thus it is harder to ensure the load is spread more evenly over the surface area of the ice tool and thus the snowpack.

This series of tests set out to explore whether we could improve on this. So we experimented with two main tool orientations.

Method One - Head to Spike
A Sling was clove hitched around both shafts at the ‘balance of surface area’. As can be seen there is no appreciable increase in actual surface area although there is better symmetry.
Method Two - Head to Spike but shafts extended to either side. This method was conceived by Nancy Chambers and was descriptively nicknamed the ‘cattle horns’. This is a variation of the method described in “Winter Skills” on page 130 and on page 201 of “The Handbook Of Climbing”. This configuration addresses the asymmetry and increases the surface area. In the case of the Reactors this increase in surface area is approximately 27%.

In both cases the axes were buried in a pit following the standard approach of flush against the front wall and bottom of a dug trench/pit.

The head to spike horizontal configuration increased strength by 66% compared to ‘traditional’ horizontal buried bent shafted technical axes and gave similar averages to the traditional reinforced horizontal buried bent shafted technical axes.

As you can see from the above diagram the ‘Cattle Horn’ arrangement gave the stronger anchor despite being buried in a softer snowpack (4 Finger hardness). This is 93% stronger than a single horizontal technical axe and 24% stronger than a reinforced horizontal axe. This arrangement significantly increases the surface area and improves the symmetry of the tools which may account for the increased strength.

Dead Men and Snow Stakes - We then tested Dead Men.

The Dead Men tests were performed to determine if there was any difference in anchor strength when the Dead Man was pushed/hammered into the snow at 40°(often done as a quick way of setting a Dead Man) compared to taking the time to measure the angle, prepare the slot and place the Dead Man as shown in Images 1 to 5 RIGHT. The snow in this case was 4 Finger hardness.

In the tests involving placing the Dead Man anchor the first test pull held a 3 person pull to 2.04kN then failed on a four person pull at 1.85kN. The second test, although we got the Dead Man moving at 1.31kN, was not a complete fail as the anchor although it moved buried itself deeper. The fails for the Dead Man pushed into the snowpack were catastrophic as the anchor came out of the snowpack.

We did not do many tests but our limited testing would suggest that taking the time to measure the angle, prepare the slot and
place the Dead Man created a more reliable and, overall, stronger snow anchor. Those that were hammered or pushed into the snow failed at lower loads.

**How Snow Anchors Work**

A fundamental principle behind all snow anchors is they rely on their surface area to spread the load evenly across the surface area of the snowpack the anchor is buried in (that is the area it pulls against). As long as the ‘strength’ of the snow pack is greater than the applied load, then the anchor will not fail. However if the load is greater than the resistance/strength of the snowpack then failure occurs.

**Climbing Forces and Loads**

To put the failure loads of our snow anchors into context we would need to know what sort of load a typical climbing fall would generate e.g. climber falls off on 50° snow slope and takes a sliding fall. However it should be borne in mind that snow anchors, in a climbing context, are very rarely used in isolation and typically are used as part of an indirect belay e.g. bucket seat with seated belayer tied into snow anchor and using a dynamic waist belay. The key element here is the belayer in their bucket seat acts as the first line of defence and limits the direct load on the snow anchor in the event of a climbing fall by absorbing some of the load through their own body (via the bucket seat and waist belay) and reduces the load by dynamically arresting the fall using a waist belay. From Don Bogie’s testing he theorised that a fall by a climbing leader on 45° slopes may generate a fall load of 4 kN to 8 kN (2). Shaun Roberts, an Instructor from Glenmore Lodge, did some tests on snow anchors on a Mountain Rescue Committee of Scotland winter anchor development day. As part of their testing they allowed a fully laden stretcher (128kg) to slide a measured distance. A slide distance of 5m produced a peak force of 2.79kN, whilst a slide distance of 20m produced a peak force of 4.2kN.

Another aspect of Shaun and his team’s testing was finding what load an individual sitting in the snow (no bucket seat just a sitting brace) could sustain. Their findings are reproduced in the table below:

<table>
<thead>
<tr>
<th>Body Type</th>
<th>Peak Comfort (kN)</th>
<th>Maximum (kN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slight</td>
<td>0.43</td>
<td>0.57</td>
</tr>
<tr>
<td>Medium</td>
<td>0.69</td>
<td>1.22</td>
</tr>
<tr>
<td>Large</td>
<td>0.5</td>
<td>1.64</td>
</tr>
</tbody>
</table>

Snow anchors depend a great deal on the integral strength of the snowpack they are placed in. Snowpacks are very variable. Even when test sites are adjacent to each other, results, as shown by studies into using rutschblocks, can dramatically vary. This effect is known as spatial variability. Hence subtle differences in the snowpack can have a profound effect on the inherent strength of a snow anchor when it is loaded, even with anchors that are created a few metres adjacent to each other.

Snow anchors, in a climbing context, are very rarely used in isolation and typically are used as part of an indirect belay e.g. bucket seat with seated belayer tied into snow anchor and using a dynamic waist belay. The key element is the belayer in their bucket seat acts as the first line of defence, limiting the direct load on the snow anchor in the event of a climbing fall by absorbing some of the load through their own body (via the bucket seat and waist belay).
belay) and reducing the load by dynamically arresting the fall using a waist belay.

In our testing of snow anchors we applied a load by having individuals pull on the test rope. We would increase the number of people pulling until the anchor failed. The average force or load exerted by one individual pulling was found to be around 0.8kN.

Buried Reinforced Horizontal Mountaineering Axe vs Horizontal Mountaineering Axe

As expected the reinforced horizontal ice axe belays were stronger than the horizontal axe belays having an average fail load of 1.48kN compared to the 0.9kN of the horizontal axe i.e. reinforced horizontal mountaineering axe belays were approximately 64% stronger.

Buried Horizontal Mountaineering Axe Vs Buried Horizontal Bent Shaft Axe

In our testing a traditional buried horizontal straight shafted mountaineering axe in a snow pack of hardness equivalent to 1 finger penetration gave an average fail load of 0.9kN whilst in the equivalent snowpack a buried horizontal bent shaft axe gave an average fail load of 0.57kN i.e. the horizontal mountaineering belay was approximately 38% stronger.

Buried Reinforced Horizontal Mountaineering Axe Vs Buried Reinforced Horizontal Bent Shaft Axe

In our testing a traditional buried reinforced horizontal straight shafted mountaineering axe in a snow pack of hardness equivalent to 1 finger penetration gave an average fail load of 1.48kN whilst in the equivalent snowpack a buried reinforced horizontal bent shaft axe gave an average fail load of 0.89kN i.e. the buried reinforced horizontal mountaineering axe was 40% stronger than the equivalent belay created using bent shaft tools. However, reinforcing the technical axe in the traditional way increases it’s strength by 56% - an improvement similar to reinforcing the buried mountaineering axe.

This would suggest that in a reinforced horizontal axe configuration the straight shafted mountaineering axes gave stronger snow anchors. An explanation for this could be that the longer symmetrical length of the mountaineering axes (60cm compared with the shorter 50cm technical tools) gave more surface area and evenly distributed the load against the snowpack more evenly, whilst the unsymmetrical shape of the bent shafted tools meant that they distributed the load against the snowpack more unevenly.

Alternative Configurations For Burying Bent Shafted Technical Tools

As symmetry appears, in addition to surface area, to be a key component in the strength of a buried axe anchor we experimented with two different configurations of buried horizontal bent shafted technical tools.

Our aim was to see if we could devise a method of making the surface area symmetrical. The first method we tested was burying bent shafted technical tools ‘head to tail’ and attaching the sling at the mid-way point. This configuration increased strength by 66% compared to ‘traditional’ horizontal buried bent shafted technical axes and gave similar averages to the traditional reinforced horizontal buried bent shafted technical axes.

Another method we tested, devised by Nancy Brookes used a ‘Cattle Horn’ arrangement i.e. axes head to tail but extend out. We only did one test with this arrangement and that in a softer snowpack (4 Finger hardness). This one test suggested that this arrangement is 93% stronger than a single horizontal technical axe and 24% stronger than a reinforced horizontal axe. This arrangement significantly increases the surface area and improves the symmetry of the tools which may account for the increased strength. More testing is required but this does suggest this is potentially a significantly stronger arrangement when using bent shafted axes.

Dead Men Snow Anchors and Snow Stakes

When comparing a Dead Man snow anchor pushed into the snowpack at 40º with one placed into a measured and cut slot, we found that the Dead men placed into the slots gave more reliable results. On our testing this gave one result in a 4 finger snow pack of 2.04kN compared with the best result of the ones pushed into the snowpack of 1.73kN. So taking the time to correctly place a Dead Man would appear to give a more reliable snow anchor even in a poor snowpack.

Snow stakes, in the soft snowpack we had for our testing, gave generally mediocre results. However in a 4 finger hard snowpack they would appear to be stronger than the one test we did with a horizontal mountaineering axe in an equivalent snowpack. More testing in varying hardness of snowpacks is required.

Summary

As stated these tests are not conclusive. What they do is give some indication as to how a variety of snow anchors may perform in the snowpack. We found that:

- Reinforced horizontal straight shafted mountaineering ice axes were 64% stronger than horizontal straight shafted mountaineering axe belays, having an average fail load of 1.48kN compared to 0.9kN of the horizontal axe.
- Bent shafted technical axes technical tools gave average fail loads that were around 38% and 40% less than the corresponding snow anchor created with a straight shafted mountaineering axe.
- Burying bent shafted technical axes horizontally ‘head to tail’ increased strength by 66% compared to ‘traditional’ horizontal buried bent shafted technical axes and gave similar averages to the traditional reinforced horizontal buried bent shafted technical axes.
- Burying bent shafted technical axes using a ‘Cattle Horn’ arrangement gave a 93% stronger than a single horizontal technical axe and 24% stronger than a reinforced horizontal axe – despite the ‘Cattle Horns’ being buried in a softer snowpack. This arrangement significantly increases the surface area and improves the symmetry of the tools which may account for the increased strength.
- Dead Man snow anchors placed into a measured and cut slot in the snowpack at 40º give a more reliable snow anchor than those simply pushed or hammered into the snowpack. In our testing 2.04kN with 1.73kN.
- Snow stakes gave generally mediocre results.

With snow being such a variable medium if you are faced with the prospect of holding a significant load i.e. falling climber then creating a bucket seat, attaching yourself to the snow anchor via the rope, plonking down in the bucket seat and taking a waist belay will all serve to reduce the potential impact force on the belay. With snow anchors, as has been the case for many years, this is still good practice.
Work Now Complete On Ben Nevis Coire Leis Cairn And No 4 Gully Cairn

Following the John Muir Trust public consultation process at the start of 2012, work is now complete on both the new Coire Leis Cairn and the replacement Number 4 Gully cairn.

Final details for the Coire Leis Cairn
The Coire Leis cairn measures approximately two metres high with a large and distinct capstone. The position of the cairn is: NN 171 710. The cairn serves as a navigation marker for the descent line from the bealach into Coire Leis.

Final details for the Number 4 Gully cairn
The Number 4 Gully cairn measures approximately 1.7metres high, with a large and distinct capstone which has two aluminium number 4s on it (one facing N/NE and one facing S).

The position of the cairn is NN 159 717 – the same location as the previous aluminium marker. The cairn serves as a navigation marker for the descent line into Number 4 Gully.

The John Muir Trust supports the Mountaineering Council of Scotland and recognises the importance of developing self-reliance in the mountains.

Safety and skills information can be found at: http://www.mcofs.org.uk/mountain-safety.asp or contact Heather Morning at The Mountaineering Council of Scotland on heather@mcofs.org.uk or 01479 861 241.

For more information on the cairns please contact: Sarah Lewis at the John Muir Trust 01397 705049 or sarah.lewis@jmt.org
Mountain rescue in the Lake District

Mountain rescue in England and Wales is structured differently to that in Scotland. Whereas Scotland has only a single representative organisation — the Mountain Rescue Committee of Scotland, in England and Wales there is a Regional layer between teams and the national organisation (Mountain Rescue England and Wales – MREW). There are nine Regional organisations one of which is the Lake District Search and Mountain Rescue Association – LDSAMRA. It is the umbrella organisation for the twelve teams in Cumbria (Cockermouth, Coniston, Duddon & Furness, Kendal, Keswick, Kirkby Stephen, Langdale Ambleside, Patterdale, Penrith, Lake District Mountain Rescue Search Dogs (formerly SARDA Lakes), Wasdale and Cumbria Ore Mines Rescue Unit). Together, these teams respond to over half of all the annual incidents in England and Wales. Langdale Ambleside is the busiest team in the UK with up to 150 incidents each year. In recent years, the Lake District teams have also dealt with a number of high profile civil emergencies including the Grayrigg rail and Keswick coach crashes, the Cockermouth floods and the Cumbria shootings of June 2010.

Rescue 2000

In the early 1990s the Commission of the European Communities had proposed a 'council directive' on the liability of the suppliers of services which could include voluntary organisations which serve communities. In England, the Lake District teams were concerned that their efforts to provide the best and most efficient mountain and underground rescue service should not be compromised by any potential fallout from future legislation which may compromise their ability to operate. There was discussion about the proposal for a national review of all the teams in England and Wales. Lake District teams were not opposed to this but felt a review that specifically met their own particular needs rather than that of mountain rescue in general would be more appropriate. The review should be outward looking in nature, involving external organisations that worked alongside the teams as well as members of the general public. LDSAMRA therefore took the bold step to meet their own particular needs rather than that of mountain rescue in general would be more appropriate. The study was managed by Wally Keay a former MR team member and the group commissioned a Steering Group comprising three long-serving members from different teams. The group commissioned myself to undertake the study. I had previously undertaken a national review of MR training in England and Wales and suspect this prompted my involvement once more. Having willingly accepted the task I quickly realised it could not be undertaken alone; I needed the support of someone with a different set of research skills to my own. To this end, Archie Roy OBE (another honorary member of the Lomond MRT) joined me. Together, we brought to the study a combined experience of over 60 years in mountain rescue and a preparedness for discussion, action and change.

Following publication and over the next few years RESCUE 2000 became a pivotal document for discussion, action and change and many adjustments were made to the service. Notably, it prompted greater involvement by teams in national matters, some rationalisation of resources, a reduction in the number of teams and enhanced standardisation in key areas such as casualty care, driver training, fatality protocols, strategic command and rigging procedures. More generally it demonstrated to the wider emergency community the willingness of teams to critically appraise their operation, share good practice and a preparedness to make changes where required.

Rescue 2020

Twenty years on from RESCUE 2000, LDSAMRA decided it was timely to undertake a similar review – RESCUE 2020. This was to be a forward-looking appraisal of the mountain rescue service in Cumbria based on feedback from team members and partner organisations. Specifically, the aim was to carry out a comprehensive review of mountain rescue provision in the Lake District with a view to identifying existing good practices, as well as issues for further development. To achieve this aim, two objectives were identified, namely:

- To ascertain the view of all team members regarding the structure and function of current provision, as well as future provision.
- To ascertain the views of partner organisations regarding existing provisions, how they believe it might operate in the future and what future developments (if any) might impact on the service.

LDSAMRA appointed a Steering Group comprising three long-serving members from different teams. The group commissioned myself to undertake the study. I had previously undertaken a national review of MR training in England and Wales and suspect this prompted my involvement once more. Having willingly accepted the task I quickly realised it could not be undertaken alone; I needed the support of someone with a different set of research skills to my own. To this end, Archie Roy OBE (another honorary member of the Lomond MRT) joined me. Together, we brought to the study a combined experience of over 60 years in mountain rescue and a set of complimentary skills in research techniques, academia and public sector management necessary to undertake an objective and independent review. We began our work at the start of 2011.

The Study

RESCUE 2000 employed a number of data collection approaches to gather relevant information. In broad terms, information was gained from sources both internal and external to MR and took the form of both quantitative (statistical data) and qualitative (views and opinions) information. Team members and individual representatives of the key partner organisations such as the Police and Fire Service were interviewed. Selected groups of casualties and fell walkers were also interviewed. In every case, only small samples were targeted.

For RESCUE 2020, we decided to avoid the limitations associated with sampling (who to sample, how many, how to sample, etc). We also chose not to speak to walkers or casualties but focus attention on the rescue teams and key partner organisations. We felt it was practical to speak to every single member of every team (around 400 people) and also make contact with every partner organisation (n = 15). This would ensure a fully inclusive study giving everyone involved in MR an opportunity to make a contribution. It would also maximise validity of the findings. In terms of collecting information we adopted a twin-phase approach where we would...
initially complete a number of interviews - phase one - and then use the results to create a questionnaire to be completed by all team members – phase 2.

It was agreed with the Steering Group that we would interview a key representative (in some cases two) from each of the partner organisations listed in the accompanying table.

**Table: List of partner organisations**

- Aeronautical Rescue Co-ordination Centre
- Cumbria Constabulary
- Cumbria Fire & Rescue Service
- Cumbria Local Resilience Forum
- Cumbria Tourist Board
- Cumbria Search and Rescue
- Great North Air Ambulance Service
- HM Coastguard
- Lake District National Park Authority
- Lake District Search & Mountain Rescue Association
- Local Members of Parliament (n=3)
- Maritime & Coastguard Agency
- Mountain Rescue England & Wales
- North West Ambulance Service
- North West Air Ambulance Service

Also, it was agreed that we would interview three members from each of the 12 teams. In the case of each team we interviewed the team leader and two others selected randomly from those with least (11 years or less) and most experience (12 or more years). Semi structured interviews were conducted lasting between one and two hours with individual partner organisations and all mountain rescue team members. Confidentiality of all information was maintained throughout. All interviewees were alerted in advance as to the nature of the study and the kinds of questions that would be asked. In the event, each interview was essentially a blank sheet exercise with just a few starter questions centred on key areas such as training, funding and operational activities. We were keen to ascertain what everyone thought was good about MR in the Lake District and also, what could be made better. These two topics permeated all interviews and applied to both MR personnel and partners.

In total, over 50 individual interviews were carried out over a period of several months. Findings from the interviews were used to inform and construct a questionnaire designed for all 400 team members. This turned out to be a much larger document than expected – 20 pages! It comprised six major sections and 184 questions (both open and closed questions). The six sections covered workload and recruitment, funding and insurance, operations and training, corporate image, working with other organisations and future developments.

A period of several weeks was set aside for distribution, completion and return of the questionnaire. In the interests of confidentiality, no individual data was collected apart from the length of experience of members together with the name of their team. The latter was required so that individual team analyses could be provided for each team for them to action as required. Teams did not have sight of each others' findings. A total of 392 questionnaires were issued with a highly successful return rate of 71%.

The study resulted in the accumulation of 50 interview transcripts and a database of 50,000 items along with several hundred of comments. The amassed evidence led to nine major ‘recommendation’ areas and 29 specific recommendations. We indicated who should be responsible for taking action (e.g. team, LDSAMRA and or MREW) but did not specify a timescale or priorities.

It should be noted that throughout the study we found everyone to be extremely helpful, interested and forthright in expressing their views and feelings. I think it helped considerably that we had credibility in MR and also that, as outsiders, we would be unbiased and objective. It also helped that team members knew the study was not an academic exercise and that the recommendations would result in serious consideration and likely change.

**Findings**

So, what did we discover and what were our recommendations? Much of what we found was extremely positive. To summarise, we found that MR provision in the Lake District is highly effective, competent and fit for purpose. It performs extremely well despite recent significant increases in workload. Rescues are always carried out successfully with the best interests of the casualty and their friends/relatives a top priority. The co-operation and effort of ‘troops on the ground’ is second to none. Teams enjoy the confidence and support of all stakeholders and communities. The voluntary ethic is very strong with an impressive display of professionalism and dedication. Team members are very proud of their versatile capability, high skill level, speed of response and ability to work seamlessly with other agencies.

These are all very positive and desirable features and we would have been surprised to find anything different. It is very rewarding to have good practice reinforced and this is always a benefit when an organisation subjects itself to outside scrutiny. But our key task was to make recommendations for the future. As noted before we were able to establish nine key areas each containing a number of relevant topics. Surprisingly, arriving at this was not too problematic. Very quickly into the data-gathering phase of the study, the key areas of concern and challenges for the future became apparent. Once these had been established, subsequent data mainly reinforced these areas through illustrations and additional support. So what were the recommendations?

**Recommendations**

The following notes summarise the recommendations and
are taken from the final report. They can also be viewed on the LDSAMRA website (http://www.ldsamra.org.uk/). Copies of the report can be purchased from the MREW website (http://www.mountain.rescue.org.uk/shop/books.html). As stated before, we did not feel it appropriate to rank in any order of priority. We felt that was best left to LDSAMRA who would be able to examine the practical, financial and any other implications better than ourselves.

Working with partners

There is a need to ensure much speedier deployment of mountain rescue teams when an off-road or mountain incident requires their expertise. The repeated delays and inappropriate tasking of ambulance assets that have taken place for several years, and the resulting tensions that clearly exist, especially between the ambulance and mountain rescue services, have to be eliminated. This is a multi-agency problem and one that requires a multi-agency solution. It is timely that, under the chairmanship of Cumbria Constabulary, CSAR (Ops) has been established, which can pursue the issue.

- We recommend this committee take these matters forward as a matter of urgency.

There is a strong feeling that the amount of training between teams and some partner organisations services – particularly the North West Ambulance Service (NWAS) - should be increased with a view to enhancing everyone’s understanding of the respective skills, qualifications and capabilities of each organisation.

- We recommend that the LDSAMRA Training Subcommittee explore training strategies that will facilitate a better understanding between the mountain rescue service and other organisations including the Ambulance Service, Police, Coastguard and Fire & Rescue.

There is a lack of knowledge about MREW and a misunderstanding of its overall purpose by team members.

- We recommend that discussions take place at national, regional and team level to identify the avenues of communication that exist between levels, any weaknesses and scope for improvement.

Team collaboration

The study reinforces the importance members attach to working together, especially the collaboration between adjacent teams. Not withstanding the general positive nature of these relationships, there is a very strong feeling this should be developed further, particularly in regard to training and operations. In the interests of reducing overall workload and improving greater collaboration, it makes sense to ask whether common elements can be delivered in a manner, which makes for greater efficiency.

- We recommend that the Training Subcommittee identify areas of work where there might be greater collaboration. Specifically, it should examine the potential to develop joint training opportunities.

- In addition, individual teams should examine if there is scope to develop existing collaborations with neighbouring teams.

Funding and Insurance

LDSAMRA presently provides financial aid to teams on an ‘equal’ basis. There is a firm view this policy should continue but there is a stronger overall feeling that it should change. There is support for central purchasing and discounting, particularly if managed by LDSAMRA and there may be scope to develop or add to existing arrangements.

We recommend that LDSAMRA:

- Embarks on a review of this policy to see if there is a more acceptable method for distributing funds.

- Seeks views from each team about how they may benefit further from regional purchasing/discounting arrangements.

- Examines the various possibilities for national funding (e.g., direct grants, central purchasing) with a view to developing a corporate policy.

Corporateness

Team identity is important, but so too is corporateness. We take the view that a corporate approach where teams collaborate and support one another, even at times when it may not be to the full advantage of an individual team is also vital. There is a view that some teams lack corporate spirit to the detriment of LDSAMRA.

- We recommend that LDSAMRA embarks on an open discussion to identify the major features of a corporate approach and that teams look at their own practices in relation to these features to see if there is a need to make relevant changes.

Competencies and governance

Much has been accomplished since RESCUE 2000 to standardise certain aspects of training. The present study suggests greater weight should be placed on monitoring, recording and assessing levels of (core) competence. Not unrelated is the view from both inside and outside mountain rescue that, for mountain rescue to develop its relationships and trust with other emergency organisations, it may have to enhance its overall governance procedures.

- We recommend the Training Subcommittee embark on a review to identify a set of core competencies, which are common to all members/teams. Further, it should examine how these might be monitored, assessed and recorded.

- We also recommend that LDSAMRA undertake an exploratory examination of governance, what it means and possible implications (if any) for teams in terms of policies, procedures and relationships with other organisations.

Workload and recruitment

Whilst the general view is that teams are coping with their current workload, it seems clear that if it continues to rise there may well be challenges in regard to callout attendance, recruiting sufficient new members and maintaining the commitment of existing members.

- We recommend that LDSAMRA take a strategic overview of the problem including the worth of co-ordinated mountain safety campaigns involving partner organisations.

- We also recommend that teams, which work together on callouts, examine how their combined resources can be utilised more effectively.

- We recommend that teams examine the adequacy of their recruitment policy in regard to future recruitment and succession planning.
Team knowledge

Many members lack knowledge of some of the key aspects of mountain rescue (e.g. mentoring and counselling procedures).

- We recommend that teams examine the methods they use for mentoring new members in terms of their effectiveness and transparency. They should also clarify the procedures they have in place for counselling and ensure all team members are fully informed about these procedures.

There are some concerns about the adequacy of individual skill levels, the overall level of enthusiasm and commitment of some members as well as the willingness for teams to be self-critical following training and operations.

- We recommend that teams undertake an audit of the skills required by their team to see if this is matched by the existing profile of skills within the team. They should also give consideration to monitoring 'soft' skills such as teamwork, commitment and volunteering with a view to assessing any weaknesses.

Callout procedures

Every team has a callout procedure designed to alert all members in the shortest possible time. Reports of slow response speed, decline in attendance, and undue pressure on a few team members and increased selectivity by members in attending incidents suggest there is room for improvement.

- We recommend teams examine their current callout procedures with a view to identifying scope for improvement.

- Further, LDSAMRA should explore the practicalities, limitations and benefits of implementing a dedicated (Mountain Rescue) emergency telephone number.

Differences between teams

The study identified many differences between teams. We feel much can be gained if teams examine the overall views of their members. This may provide teams with a perspective of which they were previously unaware.

- We recommend that each team undertake an appraisal of its own response to the questionnaire survey as well as a comparison with the overall results to identifying potential changes to its operation.

Action to date

The report RESCUE 2020 was published at an open meeting of LDSAMRA on 20th June at which representatives from all twelve teams plus officers of the association were present. Shortly afterwards copies of RESCUE 2020 were distributed to all team members and partner organisations. Members of LDSAMRA also met and agreed a positive, multi-level strategy to deal with the immediate actions. In light of one recommendation relating to the ambulance service (see before - Working with partners) a meeting with senior personnel of NWAS was arranged a week after the initial meeting. At that meeting, it was agreed that SARCALL was a key tool to address some of the key problems surrounding joint working between the mountain rescue and ambulance services. To facilitate this, a meeting of Cumbrian Search and Rescue (Operations) was arranged at which John Hulse gave a presentation on SARCALL. A general Press Release was published on July 2nd. Later in July, individual meetings took place with Lord Alf Dubbs, Rory Stewart MP and Tim Farron MP (all members of the All Party Political Group that deals with mountain rescue) and local MPs Tony Cunningham and Jamie Reed. A second meeting also took place with NWAS to discuss a programme for implementing SARCALL. It was decided this would take place in late September for a trial period of three months.

Most important, LDSAMRA established an over-arching implementation plan to manage each of the key and sub recommendations. To this end, it was agreed who should action the recommendations (region, team or both), the level of urgency required including target dates for completion (immediate, soon or future) and who should lead each part of the plan.

Since the publication of Rescue 2020, LDSAMRA have been actively pursuing the recommendations and long-term strategy. We also understand that many (if not all) teams have examined how their own team members responded to the survey and are preparing to take action where required. Further, many teams outwith LDSAMRA who have read and studied the report have commented very positively and noted that many of the findings apply to their own areas of operation. One Region has plans to commission its own study.

There is much to be gained by any organisation that subjects itself to outside review. It can be very daunting because the resulting feedback may not always be expected, positive or welcomed. But it is a sure way for that organisation to move forwards, eliminate weaknesses and improve its operation. On this point it is worth concluding with a quote from the Chief Constable of Cumbria Constabulary.

“The Lake District mountain rescue teams provide an exceptionally professional but totally free service to both our communities and to the many thousands of visitors that take to the hills. Without their support and commitment we, as the primary agency responsible for land based search and rescue, would be hard pressed to step into their boots. I have followed the development of mountain rescue and was particularly pleased when I heard that the region had decided to take a hard look at itself in order to improve the quality of the service in the face of increasing demands. Not just inwardly but also seeking the views of interfacing organisations and emergency service partners. The courage to question and challenge your own performance as an organisation is something that many organisations shy away from. To invite feedback from partner organisations, some where tensions already exist demonstrates a real desire to improve. I have read the output from RESCUE 2020 and will watch the next stage, tackling and implementing the recommendations with great interest. My officers work extremely closely with Cumbria’s mountain rescue teams and I am sure that the end result, however long it might take, will be a very good result for Cumbria.”
Located in the spacious Headingley Campus of the Metropolitan University in Leeds which provides outstanding facilities, the bi–annual UK and Ireland MR Conference is the largest gathering of Mountain, Cave and other LandSAR organisations in the UK. This year’s conference focused on technology and its applications for mountain rescue and search-and-rescue operations. With some 300 participants the event stimulated much thought, discussion and advice through the extensive programme of lectures, workshops, and exhibitions, presented by national and international practitioners expert in their field of SAR.

“Mountain Rescue must not become a corporate identity - its local ownership, and precisely its local knowledge and expertise, is what is essential to maintaining this community-based emergency rescue service.”

Yorkshire Air Ambulance

Tony Wells, General Manager at the SAR Institute, New Zealand (SARINZ) gave a compelling account of the response to the 6.3 magnitude earthquake which struck Christchurch on Tuesday 22nd February 2011.
“Mountain Rescue are true volunteers, unpaid professionals providing a totally free service to our communities. This ethos allows everyone to roam free in our mountains, and this we must preserve at all costs.”
Mountain Weather Information Service
Geoff Monks

It is now 10 years since what has become the Mountain Weather Information Service was conceived, although at that stage, there was little idea of where it would all lead.

A few years earlier, I had been prised out of the Meteorological Office in order to take forward the forecasting capability of a small independent Company base in SW Scotland, originally set up as ‘WeatherWatchers’. There was a belief that forecasts via the Internet were very much the future, although much optimism at that time as to how the forecast content might be funded. We experimented with forecasts for the UK using only the Internet, including some mountain forecasts. I was able to use my interest in mountain weather, and specific expertise in local forecasting to provide what I hoped would be useful forecasts. I was excited in the level of feedback from these forecasts.

In 2002, I followed various leads in trying to assess the need of improved mountain forecasts in Scotland. I dropped a survey to a very limited number of key people in the mountain user community along the West Coast, from Torridon southwards; later that year met the late Blyth Wright of the Scottish Avalanche Information Service, and Professor Des Smith, who had for some time chaired a Trust involved in the provision of mountain forecasts. He spoke of the difficulty of getting any funding related to mountain weather forecasts.

The survey result was interesting - I received more sheets of paper back through the post than I had delivered, it had obviously been passed on. Although very limited in terms of sample size, despite the usual differences of opinion seen in any survey results, some opinions came through loud and clear. In terms of forecasts, wind must come first. Frequently initial decisions particularly in the wintertime, are made on wind speed. Put simply, gales exclude many high level routes. What also came through was the need for an easily accessible clear forecast service for up to three days ahead.

Using the e-mail addresses provided by the survey respondents, and gaining a few more along the way, trial forecasts where then sent out for an area of the West Highlands from Torridon south to Glencoe. I asked for, and received plenty of feedback. Slowly but surely, from that beginning, the Mountain Weather Information Service was born. Indeed, it quickly became apparent, even before any funding was thought about, that credibility had to be gained - which could only be achieved by providing a long forecast trial. After further discussions with Blyth Wright, the name Mountain Weather Information Service was born, and slowly the service evolved to what it is now.

Forecasts use weather forecast information from all the model data available. These range from models of the whole globe such as run by the Met Office, to increasingly very detailed forecasts from models with a horizontal grid length of 2km covering only Britain, for example provided by the University based Weather Forecasting and Research Model. However, even this fine scale modelling fails to account for the complex topography of the West Highland of Scotland or the Lake District, although does mirror major plateau areas such as the Monadhliath and the northern Pennines. Forecaster skill comes in when (as often occurs) there are subtle differences in the forecasts produced between the models. Experience is used to discount, or put as a low likelihood certain forecast outcomes. In that sense MWIS forecasts are probabilistic in nature. This is different to almost all weather on the internet where graphics and automated text are simply those from the latest run of the particular model. Yet we believe it is vital, particularly in mountain forecasts to use this ‘ensemble technique’ since a minority forecast of say a severe storm is important to mention on the basis of mountain safety, and will often be referred to as ‘small risk of . . . ’.

Forecaster skill also comes in when improving what the model can achieve because of its smoothing of topography. Low cloud will often be taken too far across a mountain range, when forecaster knowledge would suggest a transition to higher cloud bases will take place fairly sharply, often near known geographical boundaries. There are also wind speed aspects, where when speeds increase quickly from sea level, and then drop again above perhaps 900m, very turbulent winds can result, in places the wind running down into valleys. The most famous of these in Britain is the Helm wind where easterly winds blow over the Pennine ridge near Cross Fell and into the Eden valley. Motorists know about this from extreme gusts on occasion on the Cumbrian section of the A66 (Penrith to Scotch Corner).

The variation of weather across Britain, due to both the complicated coastline and mountain topography often leads to fascinating differences in weather within quite a short distance - providing a challenge to the forecaster, and sometimes frustration but also options for the mountaineer. In the next few issues, beginning with more discussion on wind, we will look at local weather across the mountains of Britain.
Goldie visits Arran Mountain Rescue

On the 7th of September, Annabel M Goldie, Regional MSP for the West of Scotland, visited Arran Mountain Rescue at their base at Cladach and met with team members and Team Leader Alan McNicol.

Website for Arran Mountain Rescue - http://www.arranmrt.org.uk/

Annabel said in relation to her visit: “I was delighted to be able to visit Arran Mountain Rescue, to see their base, meet team members and Team Leader Alan McNicol and learn about the work of Mountain Rescue.

Mountain Rescue do a sterling job, they provide a first class service to the public. The team is made up of volunteers with a love of the mountains and a desire to help people who get into difficulty.

They display fitness, courage, professionalism, skill, determination and kindness, they are willing and able to drop everything to head to the hills to perform a rescue.

I congratulate all that they do, I wish the team well and whilst we all hope that we will never require their services, we should be thankful that there are people out there who display such community spirit”.

Remembering Stuart

Tom Gilchrist

Anyone who knew Stuart Ruffell will wince at the irony of having a memorial bench for him – Stuart rarely stopped long enough to sit down and even then it was usually when he was driving or riding his bike…..certainly his sofa was destined to live a long life. So when it was mooted by his friends in SARDA Scotland that we should create a memorial to him, a bench, excuse the poor pun, didn’t initially sit easily with us. However, a common reminisce was of sitting in the March sun beside the Kingshouse in Glencoe after the agony of the annual assessments and this made us think differently. Stuart had been there as a body, potential handler, full dog handler and assessor and Glencoe was a special place to him, and we all have our own memories of being there with him, so the decision was made to ask if we could place a bench at the hotel.

And then beers were drunk and it was decided that that wasn’t good enough and that the bench should grow to become a small meeting place for others like ourselves to appreciate the splendour of being out of doors, in the company of like minds and with the majesty of the Buachaille as a backdrop. The idea is to make a circular base of sandstone slabs for a round table and benches. This will be contained within a wall made from local stone banked up with earth and turfed. We thought Stuart would like that.

Rod, proprietor of the Kingshouse was approached and he quickly gave his consent to letting us excavate his lawn and a rough drawing of our idea was made. Burns, the holistic pet food people who support SARDA Scotland very kindly offered to pay for the bench which left us to raise funds to buy the rest of the materials. We will do all the work ourselves.

Well, not just ourselves. We know Stuart meant a lot to others too. So we approached Tweed Valley MRT with our idea and to our delight they share our vision and we are now joint partners. But as I said, Stuart had many friends and if you would like to be a part of this memorial, either to offer labour or make a financial contribution then please contact Dave or myself.
“How may I process your call?” or Once your number’s out there...

MRCS (Mountain Rescue Coordination Service)  
Ring, Ring, Ring, Ring, Ring “Hello”  
“Do you have a back up number for Central Police, just in case?”

No, why should we, its Mountain Rescue we want. “Well as mentioned earlier there are procedures to follow” - a short explanation follows.  
“Thanks, how do we get in touch with the Central Police?” Make tapping noises to emulate the sound of a computer key board whilst leafing through a paper file. “The contact details are ……..”

“Thanks do you have a back up number for Central Police, just in case?”

“No, but if you run into contact difficulties you may care to try the ARCC.”

“The ARCC?”

The role of the ARCC and its function is explained. There is a string of profuse thanks. The call ends, the folders are closed, and the radio is turned on and tuned to the news to listen for a report of a rescue on Ben Ledi.

No report is ever heard. Perhaps the person is still there???

MRCS (Mountain Rescue Community Service)  
Ring, Ring, Ring, Ring “Hello”  
“Mountain Rescue England here - I wonder if you can help?”

“If I possibly can - yes”

“Good, thanks. A lady has recently been bereaved through the loss of her husband who during his service with the army in WW2 trained in the Cairngorms which remained dear to him for the rest of his life, and it was his wish that his ashes be scattered there”

Pause for thought re contacting appropriate Teams, the logistics involved etc., etc.

The ladies number was noted and a subsequent call was made which identified the training area, and other details such as home address, legalities of transportation remains, logistics etc., etc.

More phone calls, and more discussion followed to identify a way forward, meanwhile the diary showed a meeting date in middle England was followed a short time later by another meeting this time near Aviemore.

So by a fortunate set of circumstances a solution had evolved, and thus a few weeks later another love / hate relationship with the M6 took place, followed by a more emphatic encounter with the Northern Cairngorms, and thus the undertaking was completed at the agreed time and place, giving considerable comfort to those whose thoughts will always be at that particular spot in the magnificence of the Cairngorms.

MRCS (Mountain Rescue Consultation Service)  
Ring, Ring, Ring, Ring “Hello”  
“Good day, I’m running a Half Marathon”

Interest in this comment rates about the same level as to the millionth (or thereabouts) call about PPI recovery. However, must sound up beat “Congratulations - how can I help?”

“Well I need safety cover for the event”

“Okay yes – not quite sure what you mean by safety cover, when running in a Marathon”

It transpires the caller is not running in, but running (i.e. organising) a half marathon, and a seemingly endless stream of information follows re numbers (hundreds!), location (the centre of a major Scottish city), participant criteria (casual), liability (liability? - what liability?), cost recovery (viz donations) “We thought mountain rescue was free!!! Etc., etc., etc.

“Right, but not sure where MR would fit into this”

“Well the route includes a hill where there is no road access and lots of cliffy bits”

“Oh yes – I see”

Admirable, but never the less extremely protracted, conversation follows as the extensive list of details that are trotted out are responded to in a manner which represented as closely as possible the ‘Your call is important to us’ manner.

Eventually with clarification of all queries completed the conversation ends with many expressions of gratitude, and a trembling hand returns to the now stone cold cup of coffee sitting just out of reach of the telephone.

A pain in the neck for MR - a useful training exercise - a good PR opportunity - the source of a possibly handsome donation?. Which ever depends on your (a Teams) point of view. Either way it dramatically extends BT’s call time by a considerable amount. So in any event, who ever else benefits, the ultimate winner is the telephone service provider!

MRCS (Mountain Rescue Callout Service)  
Ring, Ring, Ring, Ring “Hello”  
“I’ve just been speaking to my mates girl friend”

Thinks – where’s this going - already to much information) “and he (the mate) went for a walk in the mountains this morning, and he hasn’t come home”

Thinks again - needs a bit of conversational homework this one. Genuine problem, overstated issue, real hill job, or a cooling off from a complicated relationship?. Best establish the facts then act appropriately. After a few more minutes of polite conversation the call appears to be genuine, but to confirm – and consolidate this view few more pertinent questions are asked which confirm that the call is not a hoax.

The caller is thanked for his forbearance in answering the questions, talked through the actual procedures for activating a mountain rescue call out through the police with all the information to hand and how to present it - closing off with a few words of comfort for the girl friend, and praise for the caller for taking forward his concern for his mate.

Interestingly the relevant MR team was never called out, but in a roundabout way was involved when the overdue person happened to meet up with an off duty MRT man (if there is such a thing) from the Team, who was able to provide assistance by leading him off the hill and uniting the chap with his car. Now back in familiar territory the overdue chap quickly set off for home, but due to his extended on the hill activities it wasn’t long before he started to suffer from the drooping eyelids syndrome.
and sensibly pulled into a convenient layby for a quick nap. However, as they tend to do, the short cat nap became a lengthy crash out considerably extending the already late return home to a serious overdue.

Follow up calls revealed the string of events, the concern and assistance given by MR being greatly appreciated with extensive expressions of extended made to MR for its assistance.

MRCS (Mountain Rescue Call Service)
Ring, Ring, Ring, Ring, “Hello”
“I’m on the top of a mountain and my dog has just fallen about 40 feet and I don’t know what to do”
“Oh right, is it alive – is it moving?”
“Yes it is alive, but does not want to move”
“I see, how accurately do you know where you are?”
“Well I can tell you the latitude and longitude of my location”
“Right, lets have the readings and we can look at how we can take things forward”
Start raking through the filing system for Lat Long conversion chart, whilst thinking about the best plan of action.
“Can you tell what your dogs injuries are?”
“No, not really, but there’s no sign of blood or an actual injury, but he won’t move”
“Mmmmh – what we need is the opinion of a vet. Don’t suppose you…”
“Yes, wait I have a vets number on the phone. I’ll give them a call”
“Right, come back once you’ve got their opinion.”
There is no immediate reply, but some time later a follow up call expressing grateful thanks revealed that apart from bruising the big problem for the dog was shock, and so with the help of a couple of other folks on the hill (one of whom quite remarkably being a trainee vet – spooky!) the canine companion was physically carried off the hill, and is now bounding about as if nothing had ever happened.

MRC (Mountain Rescue Communications Service) Ring, Ring, Ring, Ring.
“Hello”
“My husband is a keen hillwalker who enjoys walks by himself, but I am a bit concerned about him doing this as he suffers from a heart complaint, and I’ve heard that there are now devices available that can tell where people are if something goes wrong”
“Yes that’s right, these are called Personal Location Beacons
and so the conversation continues answering questions, offering information and advice, which not only helps to reassure the caller, but establishes a good rapport with MR so valuable to public attitude towards the service.

The above is a not untypical diary of telephone calls received over a couple of weeks period, which is neatly summed by words inspired by a local plumbers advertisement

A call from you, reply from us,
The facts are fixed no worry or fuss,
The MR folks, all gentle giants,
The job is fixed, and a satisfied client.

Over the last couple of years my business Farx4 has provided driver training to the Tweed Valley Mountain Rescue Team. When we first worked together the team were using TdS Defender 110s but recently these have been replaced with TDCi Defender 130s. Although obviously a larger and heavier vehicle a 130 is still a capable vehicle off-road even if a little more care is required!

My job as a BORDA (British Off Road Driving Association) specialist trainer is to build not only the confidence of TVMRT members and their ability behind the wheel but also to improve their awareness of the vehicle’s limitations off-road. Even though Farx4 has its own purpose made off-road site the Defender 130s are never pushed to the limit of their capabilities. Instead we encourage ground reading skills and driving techniques that will keep the vehicles and occupants on the move.

A typical training session starts with an explanation of how the vehicle’s suspension and transmission work in an off-road situation and how to get the best from it without causing unnecessary damage to it or the environment. Following on from the briefing the instructor does a demonstration drive, then team members get an opportunity to put the theories into practice for themselves. Training groups are deliberately kept small to maximise trainees’ participation throughout the training sessions. In this way courses can be tailor made to suit a particular team’s requirements.

This flexibility also means that provided a suitable site can be found Farx4 can offer training at another venue should the need arise. Farx4 offers off-road driver training to all skill levels as well as vehicle mounted winch training courses. Both driver and winch training courses can be certificated to BORDA standard. BORDA is the UKs only professional association dedicated to off-road driving.

Long standing members of TVMRT have told me that they had benefited from a visit to Farx4 even if it was to brush up on the skills they may have already had. Other comments have related to improved confidence due to a better understanding of the vehicles, not only off-road but also on road too. Lately the winch courses have been well received and considered vital where team members may need to use what can be a potentially lethal piece of equipment.

I would welcome the opportunity to work with other Mountain Rescue teams for driver and/or winch training. More information can be found at www.farxfour.com or you can contact me, Hugh Roberts, on 01450 860275 or 07748 467637.

I’m sure Ray Smith from TVMRT would be happy to discuss their involvement with Farx4!

Please let me know if there is anything else I can help you with. Thanks.

Hugh Roberts
FAR X FOUR
The following is the report of the Mountain Rescue Accidents 1951 taken from the Scottish Mountaineering Club Journal Volume 25 Number 143.

<table>
<thead>
<tr>
<th>Date</th>
<th>Area</th>
<th>Narrative</th>
<th>Rescued</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.21/2/51</td>
<td>Mamores</td>
<td>3 climbers all benighted whilst descending from Stob Ban descended at dawn and met search parties in Glen Nevis.</td>
<td>3 all okay.</td>
</tr>
<tr>
<td>2.12/3/51</td>
<td>Cairngorms</td>
<td>Climber fell and killed whilst descending Beinn A Bhuid.</td>
<td>1 Fatality.</td>
</tr>
<tr>
<td>3.15/3/51</td>
<td>Ben Nevis</td>
<td>Two climbers both fell and injured whilst climbing Zero Gully.</td>
<td>2 injured</td>
</tr>
<tr>
<td>4.1/4/51</td>
<td>Ben Lomond</td>
<td>2 climbers overdue – located at Inversnaid whilst search parties out.</td>
<td>2 both okay.</td>
</tr>
<tr>
<td>5.9/4/51</td>
<td>Glen Clova</td>
<td>Climber cragfast located in morning.</td>
<td>1 okay.</td>
</tr>
<tr>
<td>6.10/6/51</td>
<td>Glencoe</td>
<td>Buachaille Etive Mor – climber fell.</td>
<td>1 Fatal.</td>
</tr>
<tr>
<td>7.11/7/51</td>
<td>Skye</td>
<td>Leader fell on Water pipe Gully – held by companion – taken off in the morning by stretcher.</td>
<td>1 injured.</td>
</tr>
<tr>
<td>8.23/7/51</td>
<td>Ardgour</td>
<td>Walker fell and was seriously injured, died in hospital.</td>
<td>1 Fatal.</td>
</tr>
<tr>
<td>9.30/7/51</td>
<td>Ben Nevis</td>
<td>Climbing party roped both fell, one concussion the other fractured leg.</td>
<td>2 injured.</td>
</tr>
<tr>
<td>10.1/8/51</td>
<td>Skye</td>
<td>Climber fell whilst descending the Cioch</td>
<td>1 Fatal.</td>
</tr>
<tr>
<td>11.29/8/51</td>
<td>Skye</td>
<td>Walker fell near Bad step at Loch Scavaig – head injuries.</td>
<td>1 injured.</td>
</tr>
<tr>
<td>12.3/9/51</td>
<td>Skye</td>
<td>Faller location not known fractured Skull.</td>
<td>1 injured.</td>
</tr>
<tr>
<td>13.4/9/51</td>
<td>Skye</td>
<td>Sgurr Mhic Coinnich climber fell whilst climbing alone.</td>
<td>1 Fatal.</td>
</tr>
<tr>
<td>14.27/9/51</td>
<td>Glencoe</td>
<td>Climber fell on Buachaille Etive Mor – fractured skull.</td>
<td>1 injured.</td>
</tr>
<tr>
<td>15.30/12/51</td>
<td>Ben Alder</td>
<td>4 walkers died of exposure on track between Corrour Lodge and Ben Alder Lodge.</td>
<td>4 Fatalities and 1 injured.</td>
</tr>
</tbody>
</table>

| Totals 15 | Ben Nevis 3 | Glencoe & Ardgour 3 - Central Highland 2 – Southern 1 Cairngorms 1 Southern Highlands 1 Cairngorms 1 Skye 5 |

This is the only record of Scottish Mountain accident Stats for this early period. These records are a unique source for research and as a history of the early days of Mountain Rescue in Scotland. In this year 60 years ago there were 15 incidents a far cry from today’s incidents of over 450 annually of which approximately one third are urban or non–mountaineering. There was a high percentage of climbing accidents, many climbers were pushing climbing standards at this time and gear and protection was very basic. “The leader must not fall” was the watchword of this era. 1951 was the year of some incredible routes by Tom Patey, Hamish MacInnes and friends it marked the big change in climbing standards in summer and winter.

The Corrour tragedy in which 4 died of exposure was a high profile tragic incident. There was a very interesting article by the late Doctor Donald Duff in the SMC Journal OF 1952. Donald Duff was a huge influence in Mountain Rescue during this era and was a founder member of the Lochaber Team. (His article is still very relevant today.) The Stats were used to improve mountain safety, equipment that failed was highlighted and climbers made aware started to develop new and better gear. Today we are so lucky we have so much better equipment and knowledge and so many modern methods of getting the mountain safety message out. It is so important that these Stats are still produced and the messages gleaned from them given to the Police and the Mountaineering Council Of Scotland’s Safety Officer to pass on to the public.

It is so important that the message that Ben Humble and John Hinde ex MRCOS Statistician’s worked so hard for is not lost in all the changes of modern mountain rescue. It is fully appreciated that in these days of Data protection and confidentiality those names of casualties should not be publicised. I also agree that causes of accidents can be and are a difficult subject to deal with. This should be left for the Police or relevant “expert” to comment when necessary. We should continue to list incidents annually involving Mountain Rescue Teams and other agencies. Brief details of each incident should be included to ensure that we have as a complete picture of what current trends are and how to improve mountain safety and add to the Data of the past for the use of future generations.
The Scottish Government Resilience Advisory Board Scotland (Voluntary Sector) or RABS(VS) meets at least twice a year to contribute to the Scottish Government’s strategic objective of delivering a safer and stronger Scotland. Its principal role is to bring together voluntary organisations and key stakeholders at a national level to identify, develop and maximise the sector’s contribution to Scottish emergency preparation, response and recovery arrangements.

The Group is the main national forum for discussion of matters relating to emergency planning and response between the voluntary sector, central government and statutory authorities, and is committed to be representative of those voluntary organisations involved, or with the potential to be involved, in emergency planning and response in Scotland.

In pursuit of its remit the Group holds an annual Seminar with the aim of bringing together as many of the Voluntary Sector organisations in Scotland which have the potential to be involved in civil emergencies as is practical. Thus ninety delegates gathered at the Scottish Government Buildings in Leith on the 24 September to hear talks, visit displays and exhibitions, as well as take advantage of the extensive networking opportunities.

There was strong representation from mountain and cave rescue with Tweed Valley MRT, Borders SARU, Scottish Cave Rescue Organisation (SCRO), and the MRCofS all having delegates in attendance. Borders SARU, and the SCRO also took advantage of the exhibition space available by mounting informative displays about their organisations, Borders SARU complimenting their display with one of their Land Rovers (pictured) parked alongside other emergency vehicles outside the front door of the building.

The morning programme included a number of presentations both from Government as well as Voluntary Organisations, followed in the afternoon by two table top exercises which presented each group with scenarios of challenging situations which required good communication and interagency working in order to provide an effective solution. The sum of the lessons learned then being detailed for all to benefit from at the plenary session which concluded an informative day.

As already mentioned this group is a strategic group and some members have not seen where the volunteers on the ground work from and the communications equipment they actually use. For this reason on 19th September 2012 the UK Search and Rescue Communications Working Group met at Ochils Mountain Rescue Base. The meeting was chaired by Tony Jones and discussed the usual wide range of issues involved in Inland Search and Rescue Communications.

After the meeting Kevin Mitchell, Team Leader Ochils MRT, gave the group a tour of the base and a flavour of how communications are handled by a Mountain Rescue Team and the group were able to see the equipment used by teams across Scotland. Hopefully the insight will help better understanding in future meetings.

The group also were heartily fed by Ochils MRT with a grand spread to send them on their way.

If anyone has questions or suggestions for the group they can be channeled through the Scottish Mountain Rescue Representative-James Coles
Strathpuffer 2012 (AMRT)  
The Flying Hellfish

Whilst most folk were recovering from their festive hangovers, AMRTs’ Mountain biking Team (the Flying Hellfish) were competing in the Strathpuffer 24hr Mountain bike marathon.

Based in and around the Torrachilty forest near Contin, the Strathpuffer attracts competitors from all over the world and is billed in the US Bike magazines, as one of the “top 10 toughest Mountain Bike events on the planet”.

With only 7 hours of daylight, the majority of the 11km technical course is raced over 24hrs in the dark, in freezing temperatures (this year was mild, in previous years we have seen -10c) through mud and ice.

From an MR perspective the “Puffer” presents a rather unique challenge and offers the perfect MR team event combining endurance and teamwork. The event organisers strongly support MR and have a special “race within a race” MR category where rescue teams can compete against each other. Now that the gauntlet is down, it is hoped that the Puffer will become a “must-do” event in the lengthy tradition of MR team challenges across the readership of Casbag.

This is the 4th consecutive year that AMRT has competed. Overall they finished 20th overall out of 150 teams. This year the team was joined by one of our probationary team members (Chris Hind). Here is his account of having a healthy group of psychologically unhinged mountain bike riders in the MR group, we were guaranteed a strong team to enter into the quad category of the event.

The race date grew ever closer causing the group rides to step up a gear or two, getting out in every type of weather possible to prepare for what the puffer traditionally throws at you. Being quite keen all-weather riders anyway, we had the gear and the know-how, we just had to apply it.

After some discussion the team stepped up. It was agreed; Grimly (Gary Drummond), Roland (Jones), Damon “Tinkerbelle” Powell and myself (Chris Hind) as team riders with Marv (Ian Herd) as Chief entertainment/time keeping officer in support. We were to enter in the Quad category of the Strathpuffer 2012.

With the final week in view, everyone checked out to have a fully working bike and a hardy set of bike lights. If the long, harsh night hours didn’t get to the equipment, then the weather and super abrasive mud would.

As race day finally approached the debates started about weather and choice of tyres and other minor things like spares. The Puffer has a rather nasty history of eating brake pads and this year was no exception. With mild and changeable conditions over the Christmas period, wet muddy conditions were expected again.

The Thursday before the race weekend I read an article by 2011 Solo winner, Mike Hall, about preparation (being a Puffer virgin I thought it prudent to do some research). The article gave a nice straight forward explanation of the brake pad problem and a very simple solution…cook them in the oven 200 degrees (gas mark 6) for 20min! Something about lots of heat helps cure them before they are exposed to the harsh mud on the course. What the heck! It can’t make them much worse can it? With this notion passed around the team, Grimly flatly refused, stating that it wouldn’t make any difference at all (secretly storing the info as ammunition for later on when our pads would surely disintegrate further!)

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Roland having just installed a fresh set and looking rather distraught with worry (that he would be at a disadvantage), finally caved in, dismantled his brakes for the 10th time and followed the cooking guidelines. Damon as usual stood on stoically knowing he’d get around the course what ever happened with or without his brakes, it’s just Damon’s way… Friday morning arrived, so I set to with final preparations for the pickup. Food - check, bike - check, tools - check, oven-cooked-brake spares -check, clothes - check…

I needed to be prepared for everything. “I can’t let the team down” was the mantra I had had reeling in my head since the last training session. Pick-up went well. We all met up at Damon’s where, after a cool 30 minutes, we were all packed up with every luxury known to the modern camper… garden heater, super sized “collapsible” marquee and a rather aged wooden clothes horse, amongst a plethora of other equipment.

The plan was to set out to Strathpeffer to claim our spot at the race area. It being quite a big race and there not being enough flat ground, the good spots were at a premium and needed to be bagged early. The journey north went smoothly. We had a pit stop at Christsie Garden Centre coffee shop, where we observed the largest pet rabbit in the world.

Arriving at Strathpfeffer, we popped to the Square Wheels Bike Shop, where we picked up our camping “token”. This was in the form of a colour sticker stuck to the front of an old CD case that declared itself as “the best of soul”. Opening it up, there was indeed, a CD! So we listened to the “best of soul” to get us in the mood… After 5 minutes, we decided it was the wrong mood for a 24hr endurance race, so the radio was flicked back to radio 2 (purely to elevate the irritation levels of the back seat inhabitants.)

Finally we pulled into the Torrachilty forest that would host the 500+ or so riders for the next 48hrs. After a brief survey, we settled on a perfect camping spot that appeared purposely designed for our marque. We set to erecting what would be ‘home’ for the next 48 hours. With the trailer secured, we jumped back in the wagon.

At this point I had time for a little pause for thought… (Never a good thing, but lucky I did.) Lights! Not check! I had forgotten them! I had left them sat on the kitchen table.

After counting to ten six times and checking my bags 4 times, I broke the news to the team. “No problem.” says Damon, “I’ve got a full spare set.” For most people that would be enough, but no not for me, we headed back to the bike shop, where I spent a month’s wages on a small light that I swear is powered by a miniature nuclear reactor. Grimly and Damon’s eyes sparkled under the veiled attempts at consoling my apparent stupidity at leaving the lights behind!
looked odd with the marquee? We all went trailer the night before but something was buzzing with folk on bikes preparing themselves for the start in 30min. We pull alongside to where we left the nerves on a knife edge, I pushed down some nerve stretching 15 minute drive. The place was a good atmosphere until you got a lung full of smoke from one of the fires)… then there was digger corner (there was a digger full of smoke from one of the fires)… then there was a good atmosphere until you got a lung full of smoke from one of the fires)

As a team of 4 the race would be run in a relay format, one person would hold the “dibber” (time marker), and they would exchange it with another rider after they had done a lap. So over our last meal before the race the discussion moved to the order of play and strategy for the mornings 10am start… Who would go first?

A “mass” start would be far too easy for this kind of race so what actually happens is a “le mans” style. All the first riders gather at the end of the forestry track and await the piper stopping his wily Scottish tunes… After weighing up the months and possible years of grief I’d get for leaving my lights behind, that, combined with being the newbie and not stepping up, I decided that the non committal grunts of respect would be preferable so I agreed to go out first.

Fate has a way of balancing everything… Race morning finally appears and from the moment I woke up I had the pre race nerves. I met the rest of the guys downstairs for a proper breakfast before we start, Grimly and Damon again revelling in my unease, nerves on a knife edge, I pushed down some food and went out to the wagon to await the arrival of the Marv (entertainment/time keeping officer.) He was running to Marv the arrival of the Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.) He was running to Marv (entertainment/time keeping officer.)

The start was shoulder to shoulder with similarly clad folk. I felt underdressed compared to some of the other riders! People were wearing Lycra for my first mountain bike enduro event.

The route consists of a 5km forestry track up to the top of the course interspersed with a few shortcut single track sections. It then turns into the open hill on pure single track mixed with technical rock features. After some 15 minutes of playing on rock slab features you splash down a mud section then onto hard core gravel for the final decent into the time gate. The first lap was imprinted on my mind with my own personal way markers. You had the tour de France fire road – (various teams had parked up the fire track and had tents and wee fires going. It was a good atmosphere until you got a lung full of smoke from one of the fires)… then there was digger corner (there was a digger bucket there that’s all), then there was steep right hander with noisy people (very nice stewards that tried to force feed you sweets), then there was 5 minutes of intense concentration over some rough rocks and steep slap riding, then came fall-off bridge (a narrow quite ride-able bridge but I fell off it on the first lap and decided not to chance it for the rest of the laps.) Then there was cool slab (it was just a good obstacle), then the mud shoot… (think of a water tunnel at a swimming pool, but full of sticky brown mud, edged with brambles for good measure), then you had mud hell (a very, very dirty section of fire road no longer than 200m) then came blister hill… (the only way to get up it was to ride as fast as you could down to it and hope that gravity and mud would let you get to the top before you ran out of steam). After this my 2nd mantra of the night appeared. It was the “got to get to the last hill ladies” There were two girls calling out “last hill” when I went past the first lap – never saw them again. After this it was all downhill and everything cleared from my head apart from the oversize giant rabbit we saw at the garden centre the day before. First lap nearly finished. Four steps to contend with, then a sharp left onto the ‘starting’ forestry track, then into the lights and music of the start/ time gate. I fumble getting the dipper out my jacket. The nice steward helped out and that was the end of my first lap. Just outside the time gate Grimly waits, poised over his frame while Roland comes over and takes the dipper from around my neck, a quick pat on the back and Grimly’s off up the hill.

Lap 20 Damon checks in with Alasdair Lawton from Torridon Mountain Rescue Team. Now starts a routine that gets me through the next 24hrs, clean bike as meticulously as possible but since I did my lap the wind has started to increase and the water coming out the end of the hose pipe is hell bent on soaking me rather than washing the bike but hey ho, I’m already wet.

Back to the tent for a de-brief on the track conditions to the other guys and first order of the day is to change into warm dry clothes, hang up wet ones in front of the patio heater and back out to tend to my bike for any repairs while stuffing an oaty biscuit bar down the hatch followed by a mars bar. Studded tyres were not a good choice for mud and rocks, so they’re whipped off and replaced with some full mud tyres. Everything checks out ok, still 4 hrs to go before dark, one more daylight lap to go then it gets interesting…

The agreed strategy was to do single laps each, with one double to take us through the night, allowing each of us to get a chance at some unbroken sleep.

Highlights:
Lap 1 (Chris) Fastest lap
Lap 2 (Grimly) came in early and caught Roland in the Loo.
Lap 3 (Roland) Flat tyre 5 minutes from the

So with an additional call to the entertainments office, we had more back up lights on the way, so should anything fail or run out we had plenty of extra Luminis. With my shiny new light in hand, we headed back to Inverness for a feed and a soft bed before the next gruelling 24hrs in the saddle.

We arrive at Torrachilty forest finally after a point and out to the pre erected, collapsible Marv appeared and was briskly scooped into ready, sat on the start line.

as we headed back to the start point and out to the pre erected, collapsible marquee…

We arrive at Torrachilty forest finally after a nerve stretching 15 minute drive. The place was buzzing with folk on bikes preparing themselves for the start in 30min. We pull alongside to where we left the trailer the night before but something looked odd with the marquee? We all went quiet and after what seemed like an age it was obvious there was a problem. Our rather light mood took a dip. It appeared that our collapsible marquee had taken a bit of a battering during the night and was looking a little sorry for itself. The years of team work showed through, banter took a brief respite while we got a grip on the situation and set to resurrecting the fallen marquee. My nerves forgotten until I get a sharp report from Grimly reminding me I had to be ready in 15 min for the start of the race. Trailer emptied, I jumped in and donned the Lycra for my first mountain bike enduro event.

The call came over the loud speaker. It was time to go to the start line. I’d spoken to Grimly earlier so I knew where I was picking up my bike. I left the guys at the tent after a nervous “before” photo and started the short walk to the start line.

The start was shoulder to shoulder with similarly clad folk. I felt underdressed compared to some of the other riders! People were wearing Lycra for my first mountain bike enduro event.

the dipper from around my neck, a quick pat on the back and Grimly’s off up the hill.

as we headed back to the start point and out to the pre erected, collapsible marquee…
After 5 laps the route is now burned into your memory as nothing else in the world matters apart from the task at hand. I have vague memories after returning to the tent from my ‘double’. I find Marv in fits of giggles after apparently overdosing on Haribo when he decided to decorate a snoozing Damon with a few spare tyres he’d found amongst the wreckage of the tent.

It’s difficult to describe what you are feeling at 0400hrs, pulling on wet lycra and muddy shoes, even the simplest of tasks are hindered by the cold blanket of exhaustion where just remembering where you parked your bike seems difficult, let alone the multitude of other small things you need to remember.

After a quiet but windy night, the dawn slowly appears over the top of the hill as you find your lights become less effective. The slow rush of blood takes over and your memory as nothing else in the world matters apart from the task at hand. I have vague memories after returning to the tent from my ‘double’. I find Marv in fits of giggles after apparently overdosing on Haribo when he decided to decorate a snoozing Damon with a few spare tyres he’d found amongst the wreckage of the tent.

The next 10 hours flies by after a few hiccups with our timings we managed to settle into a routine where we could predict when each of us would get in. The same routine, the same mantra’s but with every lap ticked off, the body starts to stiffen, getting back on the bike after a 3 hour break starts to become a little less appealing.

Yes! In a heartbeat.

Mario di Maio - a Celebration

Aberdeen MRT held a celebration dinner and presentation on October 6th in recognition of Mario di Maio’s 19 years as leader of the Team. Held in the grand surrounds of the Banqueting Hall of Castle Fraser some 12 miles west of Aberdeen the evening was a wonderful tribute to the many years of service Mario has given to mountain rescue, and in particular his years as leader of Aberdeen Team. In the company of many Aberdeen Team members past and present, together with a number of guests including representatives from the Order of St John, Grampian Police, Braemar MRT, and MRCoS Exec, the gathering was availed of lively speeches which described in humorous detail many of the notable changes and events that have taken place in Mario’s some 40 years MR.

In reply Mario gave generous tribute to all who had worked with him over the years, in particular the invaluable support of his wife Linda, who smilingly acknowledged her ongoing support of Mario who whilst standing down as leader is happily remaining with in the team as an “ordinary” member.

Following the speeches Mario was presented with a splendid brass compass and a magnificent photo album with images illustrating many of the multitude of activities undertaken by the Team during Mario’s leadership. An enhancement to the evening was the menu for the beautifully presented meal which featured a fine photo of the Cairngorms peeping through temperature inversion, the perfect choice for a perfect evening.
### 2012 Conference

**Preparing for the Winter Mountains**

14th – 16th December  
Glenmore Lodge

The conference for new member to seasoned rescuer alike  
Ideal prep prior to any winter training  
£20/team member

Arrival and registration 1800-1900 Friday 14th  
Finish 1700 Sunday 16th

**Preparation is about to begin**

Available Workshops  
2 hour centre based workshops  
Operating Saturday AM and PM, Sunday AM and PM

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<thead>
<tr>
<th>Training and Injury Avoidance</th>
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<tr>
<td>Gym based workshop with Highland Institute of Sports Coach, Jas Hepburn (Cairngorm MRT). Learn how to keep those legs mountain ready and avoid injury.</td>
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<th>Dry Tooling</th>
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<tr>
<td>Improve your use of axe and crampons on mixed terrain from Grade I to Grade VII with Scottish Tooling Series route designer Mark Chadwick (Glenmore Lodge MRT).</td>
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<th>Avalanche Transceivers</th>
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<tr>
<td>For novice or improver, this is a chance to improve your transceiver understanding and skills on Glenmore Lodge’s ‘all season’ Transceiver Park (top trainer tbc).</td>
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<th>Scottish Cas Care</th>
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<td>Improve your understanding of the developments within Scottish Cas Care; assessment requirements, team training goals will be covered by the Medical Sub Group.</td>
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<th>SARLOC mobile phone location system</th>
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<td>Spend time with the designer Russ Hore, learn how to operate the system with confidence and hear of the new developments.</td>
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<th>5 hour mountain based workshops</th>
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<td>Operating all day Saturday and all day Sunday</td>
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<th>Hypothermia</th>
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<td>A practical approach that clarifies the subject and presents clear casualty care options, delivered by the very cool Simon Steer (Cairngorm CMRT, Medical Sub Group).</td>
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<th>Train the Trainers – Winter Skills</th>
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<tr>
<td>How to get the most from your team winter training. Top tips on delivering winter skills training with Mountain Training Scotland, Executive Officer, George McEwan.</td>
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<th>Rescue on Skis</th>
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<tr>
<td>Ski touring session designed to improve skills and encourage those with some ski touring experience to utilise their skis for rescue, with Ski Guide Eric Pirie (Cairngorm MRT). Personal ski touring equipment required, ski pass provided.</td>
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<th>Avalanche Hazard Evaluation</th>
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<tr>
<td>How to practically evaluate potential hazards throughout the mountain/rescue journey. Delivered by SAIS Coordinator Mark Diggins.</td>
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<tr>
<th>Fixed Lines and Short Roping Casualties</th>
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<tr>
<td>How to deal with the walking casualty through steep terrain. Explore the options with Al Gilmour (Cairngorm/Glenmore MRT).</td>
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### Winter Navigation and GPS

**Personal skills and rescue specific tactics for winter navigation. How to work as a small team in the toughest winter conditions and how to tactically use your GPS to improve searching (top trainer tbc)**

### 4 x 4 Winter Vehicle Recovery

**Explore the options for recovering those stuck vehicles with the team that drives to the highest plateaux. Delivered by Steve Broadhurst (Cairngorm MRT). Note that 4 x 4 team vehicles will be required and please bring any recovery equipment that you currently have.**

### Winter Belay and Rigging

**A wee taster from the National Winter Rigging course. (top trainer tbc)**

### Choose your Workshops

Tailor your conference experience and please indicate your workshop preference with your booking. To fill your day choose either a single 5 hour mountain based workshop or two 2 hour centre based workshops.

<table>
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<tr>
<th>Saturday</th>
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<tr>
<td>CENTRE WORKSHOP am</td>
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<tr>
<td>MOUNTAIN WORKSHOP all day</td>
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<tr>
<th>Sunday</th>
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<tbody>
<tr>
<td>CENTRE WORKSHOP am</td>
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<tr>
<td>MOUNTAIN WORKSHOP all day</td>
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### Traders

Selection of traders with focus on following equipment:  
- Lighting (Safequip)  
- IR Handheld Scopes (ISS thermal)  
- Avalanche Safety (BCA)  
- Clothing (tbc)  
- GPS (Garmin)  
- Stretchers (Ferno)

### Talks

- **Di Gilbert, Seven Summits**  
  How my Scottish Winter experience equipped me for the challenges of climbing the highest and most remote mountains in the world.

- **MRC of S Update**  
  A brief update from the Chair, Training Officer, Medical Group and new National Resource Group.

- **Police Reform**  
  Quick update from Andrew Todd of ACPOS on current position.

- **IKAR Update**  
  Brief update from our delegates who attend IKAR Congress on Terrestrial, Avalanche and Air Rescue.

2012 Conference hereby promises not to allow any long, drawn out, overly detailed talks to take place throughout its program.

### Bookings

All bookings via projectmanager@mountainrescuescotland.org  
£20/team member

Payment to MRC of S (please indicate team names with payment)  
Indicate your workshop choices (please indicate first and second choice where possible)

All Team Members should come along with full winter clothing, axe, crampons, transceiver, helmet, harness and team radio – be prepared.
Many people visit Ben Mac Dui as the second biggest mountain in the United Kingdom it is a busy mountain. It is amazing how many visit this summit yet fail to notice a memorial marked on the map. 70 years ago on the 21 of August 1942 there was a plane crash on Ben MacDui. The memorial is about 500 metres from the summit, on a ridge, the view is incredible. There used to be a wooden plaque but now there is a metal one next to a small cairn and some wreckage. On the memorial are the crew names:

Flight Sergeant Carruthers (Wireless Operator/ Air Gunner)
Sgt J Llewellyn – (Pilot)
Pilot Officer W Gilmour (RCAF) Canadian Air Force. (Navigator)
Flight Sergeant Fillingham (Observer)
Sgt J B Robertson (Wireless Operator/ Air Gunner)

This is to commemorate an aircraft crash here 70 years ago. It was an Avro Anson Mark 1 DJ106 the aircraft crash killed all five of the crew. The aircraft and crew flew from RAF Kinloss in Morayshire in Scotland and was on a Navigational Exercise. The crash was located by the Royal Observation Corp on the 24 August and it took till the 27 August to remove all the casualties off the hill. This was in the dark days of war when Britain was fighting for its life. The Cairngorms was a huge training area, much of it sealed off and the public not admitted. The mountains were the ideal place to test the skills needed by many different troops and Special Forces.

The Avro Anson was a two engine aircraft and widely used as a training aircraft by the RAF and Commonwealth crews. Many of whom were lost in the mountains and the sea during training. This was due to the aircraft being very basic with limited navigation facilities, communication and the crew training short to support the war effort as quickly as possible. In addition the maintenance of the aircraft would have been very basic due to shortages of equipment and manpower. Crews were needed as quickly as possible for the war effort and unfortunately aircraft regularly crashed. Many crews died in the mountains after surviving a crash but dying of injuries. This was why in later in the war The RAF Mountain Rescue Service was formed.

As a member of Mountain Rescue for nearly 40 years, one can only imagine the recovery operation to recover the fatalities. This was a very remote place in 1942. Access was a long 3 -4 hour walk with basic equipment, no helicopters in those days and highland ponies may have helped with the transport. Even in August the Cairngorm plateau can be a very in hospitable place.

There is a lot of wreckage around the crash site even after all these years. Both of the Armstrong Sidley Cheetah engines are still there. The wreckage follows a line about 300 metres into the burn the A’ Choire Mhoir where one of the engine lies. Pieces of the undercarriage some of it made of wood and sections of steel framework and lots of aluminium panels are still there. To wander round on a clear day as I did this month is a moving experience. The views of the Larig Gru and the huge corries of Coire Bhrochian and An Garbh Coire are impressive, this is a special place. The burn has several pieces of wreckage including a tyre. If you follow it further down the hill, you will see the power of nature and more wreckage. In winter the crash site can be under snow for several months and I have often used the memorial as a winter navigation training point when I was with the RAF Kinloss and Leuchars Mountain Rescue Teams. It is hard to find in a Cairngorms whiteout and the ground on the Larig Gru side is very steep. The stream and gully is usually full of snow and most of the wreckage is buried in winter.

I did a piece for the BBC to be shown on the anniversary of the crash on BBC Scotland and BBC Wales. The weather was incredible and the views amazing, what a backdrop over to Angels Peak and Devils Point. It was a truly moving day and I hope we manage to portray some of the atmosphere of this special place. Three of the crew are buried in the cemetery at RAF Kinloss Abbey and the other two were taken home to Wales and Windermere. Whenever I visit a mountain with a crash nearby I try to leave a small cross in remembrance of those who gave so much.

Even today aircraft still crash in the mountains and in 2001 two American F15 aircraft crashed about half a kilometre from the Anson on MacDui. The F15 was state of the art technology aircraft and unfortunately both crew were killed. It took 2 days to find the aircraft, even in these days of huge changes in technology and equipment. Nature has a way of showing man who is in charge! The whole recovery took several months to clear the wreckage, unlike during the war, when there were no resources, and aircraft were left where they crashed.

The high mountains of the UK have many such aircraft crashes from the war, where few survived after a crash and one near Ben More As-synt the crew are buried at the site. We must never forget the cost to these young lives; these were young men who died on the mountains for us to have the life we have today.
NAO

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